

ting. When it dropped behind that purple line of hills the back, like a black, sluggish beetle, would crawl down the hill that lay beyond the river, cross the bridge—climb slowly—torturingly slowly—

Roxanna paled, trembled, stretched out a hand which failed to open the kitchen door in a fumbling search for the knob.

The door burst open. They flung themselves upon her—Buddie and the young girl wife.

"Mother!" Roxanna's boy held her from him, scanning her face anxiously. "Why, Mother, you haven't been sick, have you? You look so little and— and sort of shadowy. You were always sort of shadowy, weren't you? Your letters—everyone of them—saw like a tank. But you don't look like your letters, Mother!" His arms closed about her. "You've been lonely—very lonely! Oh, why didn't I have sense enough to know it in some of the letters?"

Roxanna felt the girl's soft arms about her neck. "We believed the letters down to the very minute when I first held my own little Roderick in my arms and Reddy held us both," she was saying. "Then we knew. Then we both said that the first day I was strong enough we should come. For you wanted me too, didn't you, Mother?"

Roxanna didn't speak,—she couldn't,—but her cheek sought and found the young wife's soft cheek.

"Yesterday, though, another. Mrs. Randall, who lives farther down the street, came to see me. She was desperately ill when our baby was born. Nobody saw her but the doctors and nurses. When she was ill one day a lady came to the door who said she was Mr. Randall's mother. But the mother of that Mr. Randall is dead. The lady was so insistent that the nurse had to be quite sharp with her, Mrs. Randall said. And when the poor woman turned away, almost fainting, her heavy valise fell open, and it was full of little baby things!"

Roxanna drew a long quivering breath, and a great peace came into her eyes; but she did not speak.

"I could hardly be decent to Mrs. Randall the rest of her call," the younger woman was saying. "It wasn't her fault, but she could have been human about it. She's got no baby; just a horrid, woolly dog—and she calls herself mother to it. Mother!" The indignant young voice broke on a sob. "Oh, I guess I wasn't strong enough yet to come,—the doctor was raging,—but we had to come. And I would not be left behind. I want a mother too. I never had one since the day I was born. I am silly," she dashed the tears away and lifted her head to look in Roxanna's face; "but all day that lady looking for her son has haunted me. It has

made me think of how you must have longed for your son. Tell her, Reddy—tell her that we didn't know how she wanted you, or what an eternity of time a year can be till—till now."

"My dears, my dears!" Roxanna said weakly as they took the baby from the nurse and put it into her arms.

"And, Mother," the new, deep look in Buddie's face, the new, deep tone in his voice, "all my life, since I've been big enough to worry, I've worried that you were here behind this rose-screened lattice eternally. We ate not going to let you stay here. But since yesterday I've thanked God for its shelter, because I could know that, whoever mother it was that couldn't find her love, it wasn't mine."

His arms drew them all close, and suddenly there was in his voice the sharp appeal to his mother of the little lad he had been.

"My dears, my dears!" Roxanna looked from the little bundle in her arms to them, and her face was the face of one who comes out of barren sands into the blooming oases of her loved ones. "I am sure the poor old lady with the baby clothes has found her son by this time—and much more besides!"

MINE WASTE

IN most mining districts material that has been deemed almost worthless has been accumulating for years. But some of our ingenious turn have found uses for much of this so-called waste.

For example, in Jasper County, Missouri, are hundreds of lead and zinc mines. The ores therefrom are strongly allied with lime and flint, and to remove the metal from the crude material as cheaply as possible it is necessary to crush this rock formation into small bits. After the lead and zinc have been removed there remains a hard substance known as "chats." This was left on the ground in great piles, and, except for road construction, no one knew of any useful purpose for it. Finally one of the railways began to employ it as ballast. Its example was followed by other railways, and it was not long before many discovered that for ballasting it was unsurpassed.

With the advent of concrete paving chats was tried as a filler, and it was found as serviceable as gravel and much cheaper. Then it found its way into concrete blocks, being used in the construction of cement foundations, culverts, and bridge piers. Farmers began molding it into fence posts, with cement as a retainer.

Mining waste from other mines has been found to be of more or less value. One use for slag from furnaces is in the construction of wharves and the filling in of waterfronts.

THE DOCTOR AND THE VOICE

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mild astringent applications, followed by a carefully selected course of vocal exercises, calculated to restore vigor and proper resilience to the parts.

Do not become discouraged if you are suffering from what you think, or have been told, is a permanent loss of voice. Your medical specialist and the services of a skilful vocal teacher will in a few months, if there be no organic disease, restore the former strength and sweetness of the voice, if you will but be patient, hopeful, and persevering.

An interesting form of aphonia is that complete or partial loss of voice due to fright. The vocal organs, so far as molding and emitting sound are concerned, seem to be absolutely paralyzed. Hysterical aphonia can usually be differentiated from true paralysis by the fact that in tickling the throat, or otherwise causing the singer to cough, there is distinct "vocal" sound in the effort; whereas, in paralysis, it is merely a "whoosh," a forcible expulsion of breath, unaccompanied by vocal vibration.

I saw several interesting cases treated by Morelli, in Rome, for this trouble, and the most interesting feature was that therapeutic suggestion played the principal role in the "cure"; for, having found that the aphonia was of hysterical origin, Dr. Morelli informed the patients that slight operations were imperative in order to restore the voice. Having gained their concentration by an impressive display of instruments, Morelli delicately desensitized the parts with a very weak cocaine solution, and then introduced a laryngeal speculum and a wireless electric cautery point. This point went no farther than the back part of the mouth, and was "switched off" by his assistant as soon as it was out of sight of the patient. The beneficial result of this psychic treatment of hysterical aphonia—so Morelli claims—is almost uniformly successful. I would recommend this to the attention of American specialists, who may not yet have tried it.

MANY singers and speakers who suffer from vocal fatigue during a performance or a lecture do so as a result of imperfect ventilation in the indigorum. It is remarkable that a lack of fresh air so speedily affects the vocal apparatus; but such is the case. The

American custom of having the hall or theater "piped hot" is an abominable one; not alone because of the effects of superheated dry air upon the vocal organs, but also because this prevents the full enjoyment and comfortable appreciation of the performance by the audience itself. A movement has recently been started in New York having as its purpose the nation-wide education of theater, concert, and lecture audiences in the matter of improved ventilation. Some managers seem to regard fresh air as a thing so valuable that it must be saved carefully, and breathed over and over again.

This movement on behalf of both professional entertainers and theatergoers is intended to show the error of that way; also the beauty, charm, and increased enjoyment all round if a little extra coal is consumed, and a great deal more fresh air admitted free.

Excessive dryness of the throat frequently causes extreme annoyance or actual distress to public men or artists. This is only momentarily relieved by sipping water. A much better and more effective plan, and one that gives infinitely more lasting results, is to chew a small piece of apple immediately before "going on." The malic acid seems to quench the fire of air dryness much better and more permanently than water. Similar good results come from dissolving a small piece of salt in the mouth a few minutes before a performance. These measures stimulate the action of the salivary glands, and prevent a dry and chafed tongue from cleaving to the roof of one's mouth.

Actual physical fatigue follows the work of a singer or actor much sooner than it does that of the ditch digger or laborer of the same strength and resisting power. This is because of the increased expenditure of vital energy, in addition to the rapid waste of strength, during the actual work of singing or acting. Business men, with great responsibilities, upon whose shoulders large interests depend are subject to similar prostration after a hard hour of dictation, or in the boardroom of a directors' meeting. This condition of nervous and physical exhaustion

also furnishes the excuse for the cocktail and the quick "pick-me-ups" of the Americans.

Now, there is a method of stimulating without reaction, of reinforcing vital resistance without pulling a cork, of overcoming fatigue without resting. So far as I know, it is original. It came to me when on a walking trip through Switzerland some years ago, as I noticed my little fox terrier panting in quick, deep breaths.

We have been told that a dog's open-mouthed, tongue-dolling breathing is his method of perspiring. But I reasoned that it might be his way of burning up fatigue poisons, of bringing a tremendous amount of oxygen into the blood through the lung cells, and that this might have been one element that gave him his wonderful powers of endurance, enabling him to circle back and forth all day long, running ten miles while I walked one.

I tried his principle, and so successfully that now, when fatigued, or drowsy, or just before a performance requiring the expenditure of considerable energy, I adopt the dog's procedure, which consists simply in going into the fresh air, or in standing by an open window, and forcibly inhaling and exhaling deep breaths for three or four minutes at a stretch, repeated at intervals of fifteen or twenty minutes. This aerates the blood, charging it with all the oxygen that the red blood corpuscles can carry. This also burns its poisonous and goes in the lungs, waiving them out in every cell, and, moreover, the poisons of fatigue that have been thrown into the blood by the breaking down of tissue. Symptoms of sleepiness or dullness are almost completely and immediately dispelled.

RAPID, deep breathing also stimulates the mind amazingly, and business men and professional friends, to whom I have recommended it, state that when, before, they were groping for words or ideas in their correspondence, after this forced oxygenation their diction tested the speed of their most expert stenographers. Some physical culture friends who tried on the experiment claimed that in "shinning the bar," dumbbell lifting, or other feats of strength and endurance, their capacity was increased from twenty to forty per cent. by forced deep breathing.

In addition to overcoming mental and physical fatigue, this also materially prevents nervousness and the self-consciousness that public appearance frequently provokes, even in the most blasé. It may be well to add a word of caution against the practice of these breathing exercises by the aged or by those with weak hearts or hardened arteries; for there follows a decided increase in blood tension, and a marked rise in pulse rate, which might prove detrimental to those whose continued existence on this sphere depends upon observing the utmost quiet and composure. But for the young or middle-aged who tire readily, for the anemic and those of sedentary habits, and for a quick stimulant that is all stimulant, nothing exceeds this method of deep, forced breathing. And it costs nothing but a slight effort.

While we are on this subject, it might be pertinent to mention that for all singers, actors, clergymen, lawyers, and others using their voices, exercises tending to increase lung capacity—as running, fencing, walking, swimming, dumbbells, etc.—are invaluable; for upon the strength and use of our bellows, the lungs, depends the amount of air that can be forced through the vocal cords to sustain a long phrase, or deliver a proposition that doesn't seem hobbled-gaited because of shortness of breath; in other words, to give a performance that may convert an audience of spectators into an assemblage of friends.

It is the consensus of opinion among medical men that alcohol is extremely harmful to the voice. In fact, Marchiafava, physician to the King and the Pope, and other eminent authorities contend that it is a poison, and never in any circumstances fit for human consumption. Experience has shown that it has a powerfully irritating effect upon the vocal apparatus. Any singer or speaker who values the continued possession of his voice would do well to leave it severely alone.

We are justified in saying that, as a stream can rise no higher than its source, so a voice can rise no higher than the body that produces it.

Good health is indispensable to the possession and maintenance of a good voice. With proper observance of the laws of hygiene and physiology, with the occasional advice of specialists in "vocal ills," and the intelligent direction of competent teachers, one should maintain a fresh, strong speaking or singing voice until the "mineral age" of life comes, and the former flexibility, ductility, membranes that cunningly share the tone are gradually turned into cartilaginous, or even bony, curtains, which close forever, like the rigid tomb, that beautiful instrument of the soul, the Voice.

